

Claims

1. Device for sawing apart two-up blocks of adhesively bound or thread-stitched book blocks and brochures, said device having a conveying apparatus for continuously transporting the two-up blocks and the cut-apart book blocks or brochures in a conveying direction on a plane of conveyance by means of side-by-side plate-chain conveyors for carrying the two-up blocks and associated side-by side upper pressure-applying belts for holding the two-up blocks down against the plate chain, and said device having a circular saw blade which is driven in a manner rotating in the same direction as the direction of conveyance of the two-up blocks and the axis of rotation of which is disposed above the plane of conveyance of said two-up blocks, said saw blade having a cutting width (S) through the two-up blocks,
5 wherein the improvement comprises a scoring tool for the underside of the two-up blocks disposed upstream of the circular saw blade for scoring into the underside with at least one left-hand and one right-hand laterally spaced scoring lines, which scoring lines are each at a distance of only a few tenths of a millimetre from the separating saw
10 cut.
2. Device according to claim 1, wherein the scoring tool is a rotatable, two-row circular scoring knife.
- 25 3. Device according to claim 2, wherein the circular scoring knife is driven in the same direction as the direction of conveyance.
4. Device according to claim 2, wherein the circular scoring knife is formed from two knife blades which are clamped to one another in
30 spaced relationship by means of an interchangeable intermediate

shim piece for setting the distance between them, and thereby setting a cutting width (R) defining the left and right scoring lines of said circular scoring knife.

5 5. Device according to claim 4, wherein rotation of the scoring tool produces a circle of flight of the knife blades and the knife blades present, at said circle of flight, a multiplicity of individual knife edges which are separated from one another by a cut-out portion and have a cutting line inclined with respect to knife blades, in such a way that
10 a rising cutting line is produced in the course of the scoring-in operation.

6. Device according to claim 1, wherein the left and right hand scoring lines are produced by a cutting width (R) of the scoring tool that is
15 about 0.2 to 1 mm wider than the cutting width (S) of the circular saw blade.

7. Device according to claim 1, wherein the scoring tool is adjustable transversely to the direction of conveyance of the two-up blocks.
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8. Device according to claim 1, wherein the scoring tool is adjustable in height for the purpose of setting a specific scoring depth and for the purpose of bringing the scoring tool itself out of engagement.

25 9. Device according to claim 1, including a holding-down rail acting on the upper side of the two-up blocks during the scoring operation of the scoring tool.

10. Device according to claim 1, including a counterplate associated with
30 the circular saw blade between the plate-chain conveyers for

supporting the two-up blocks in the course of the separating cut, and which has an incision (E), which is wider than the lateral space between the scoring lines, for the passage of the circular saw blade, and additional apertures alongside, before and after the passage for the purpose of extracting the saw shavings occurring between the plate-chain conveyers.

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11. Device for sawing apart two-up blocks of books or brochures, comprising:

10 conveying means for continuously transporting the two-up blocks in a conveying direction along a plane of conveyance, which conveying means includes parallel spaced apart conveyor bands for carrying the two-up blocks to a separating blade which passes between the conveyor bands;

15 said separating blade formed as a circular saw blade having a cutting width (S), which is rotated in the same direction as the direction of conveyance of the two-up blocks and the axis of rotation of which is disposed above the plane of conveyance of said two-up blocks; and

20 a scoring tool for the underside of the two-up blocks, disposed upstream of the circular saw blade between the spaced apart bands, for scoring parallel lines into the underside of the blocks while the blocks are conveyed toward the saw blade, the scoring lines running in the direction of conveyance and spaced apart by a distance that is greater than the saw cut width (S).

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12. Device according to claim 11, wherein the scoring tool is a rotatable two-row circular scoring knife.

13. Device according to claim 12, wherein the circular scoring knife is rotated in the same direction as the direction of conveyance.
14. Device according to claim 12, wherein the circular scoring knife is formed from two spaced apart, corotating knife blades which define a cutting width (R) for cutting the scoring lines at said spaced apart distance.
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15. Device according to claim 14, wherein rotation of the scoring tool produces a circle of flight of the knife blades and the knife blades present, at said circle of flight, a multiplicity of individual knife edges which are separated from one another by a cut-out portion and have a cutting line inclined with respect to knife blades, in such a way that a rising cutting line is produced in the course of the scoring-in operation.
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16. Device according to claim 14, wherein the cutting width (R) of the scoring tool is about 0.2 to 1 mm wider than the cutting width (S) of the circular saw blade.
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17. Device according to claim 11, wherein the scoring tool is adjustable transversely to the direction of conveyance of the two-up blocks.
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18. Device according to claim 11, wherein the scoring tool is adjustable in height for the purpose of setting a specific scoring depth and for the purpose of bringing the scoring tool itself out of engagement with the block.
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19. Device according to claim 11, including a holding-down rail acting on the upper side of the two-up blocks, in opposition to the scoring tool.
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20. Device according to claim 11, including a counterplate associated with the circular saw blade between the conveyor bands for supporting the two-up blocks in the course of the separating cut, and
5 which has an incision (E), which is wider than the distance between the scoring lines, for the passage of the circular saw blade, and additional apertures alongside, before and after the passage for the purpose of extracting the saw shavings occurring between conveyor bands.